

Fig. 1

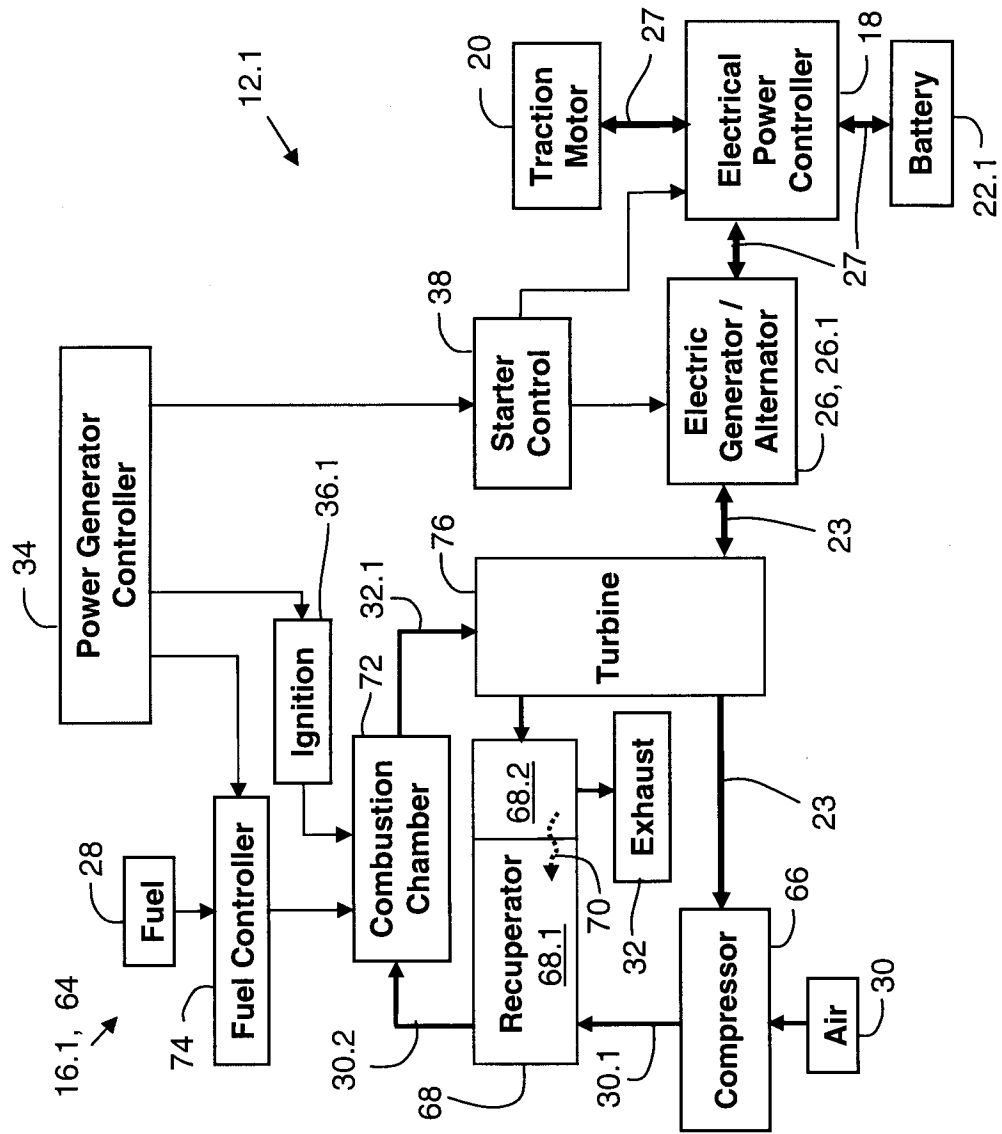


Fig. 2

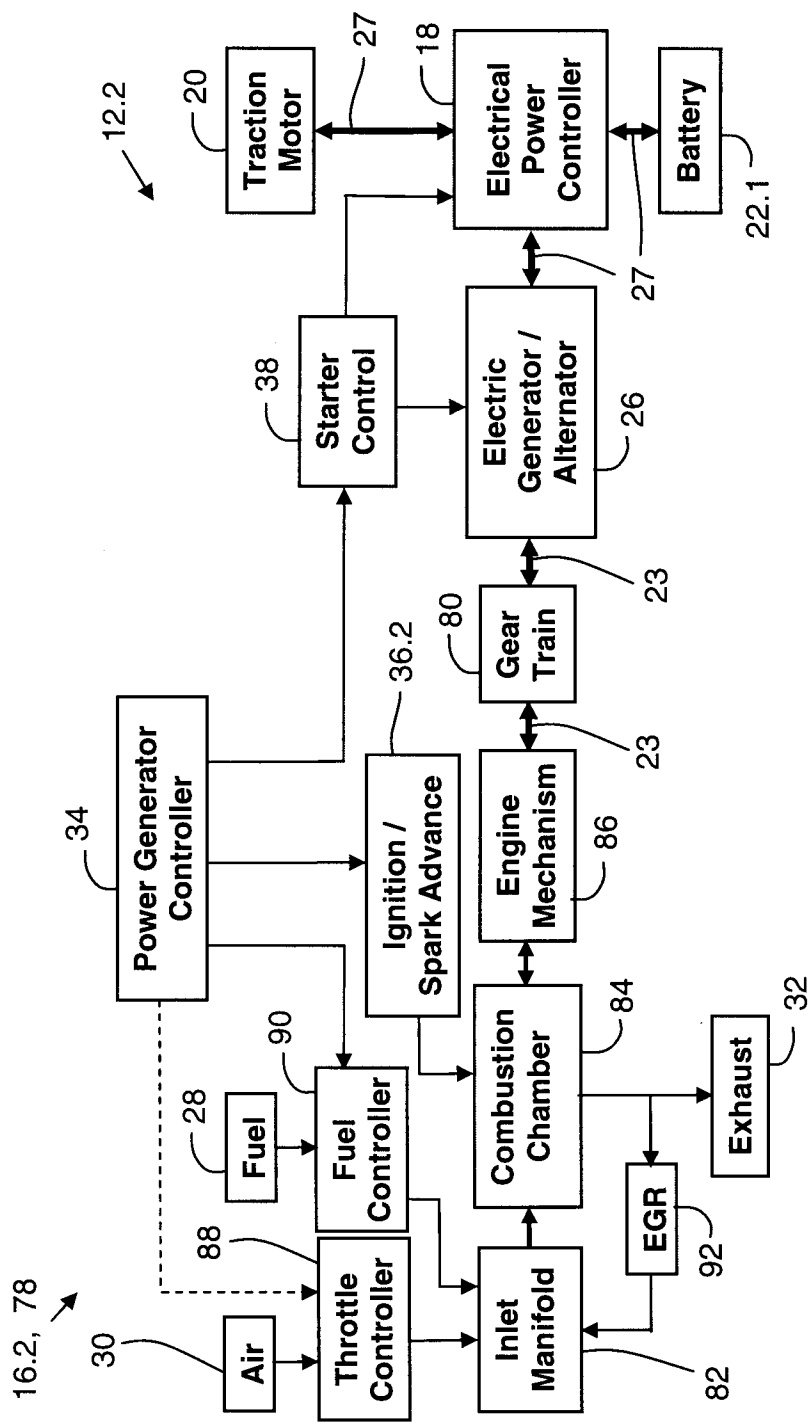


Fig. 3

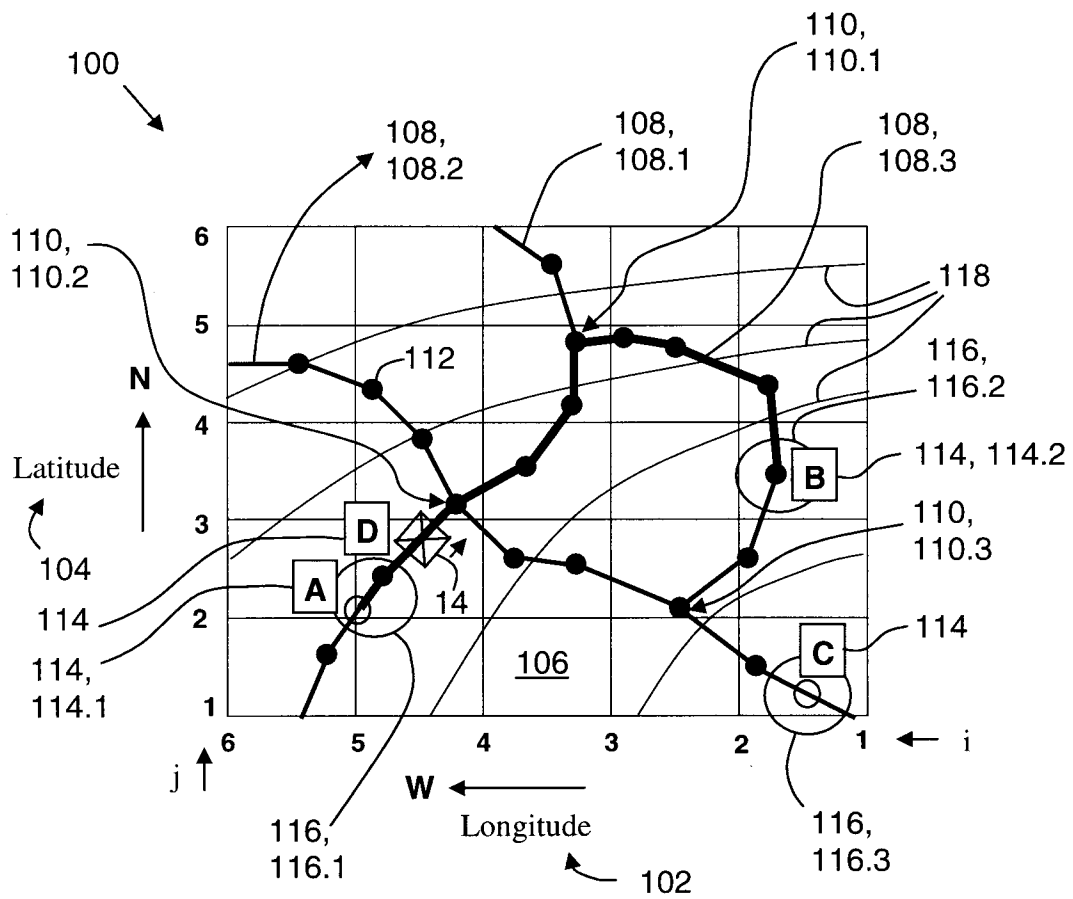


Fig. 4

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Southeast Corner		RoadList_ptr	DestinationCircleList_ptr	IntersectionList_ptr
Latitude	Longitude			
Latitude(1)	Longitude(1)	RoadList_ptr(1,1)	DestinationCircleList_ptr(1,1)	IntersectionList_ptr(1,1)
Latitude(1)	Longitude(2)	RoadList_ptr(1,2)	DestinationCircleList_ptr(1,2)	IntersectionList_ptr(1,2)
...
Latitude(1)	Longitude(M)	RoadList_ptr(1,M)	DestinationCircleList_ptr(1,M)	IntersectionList_ptr(1,M)
Latitude(2)	Longitude(1)	RoadList_ptr(2,1)	DestinationCircleList_ptr(2,1)	IntersectionList_ptr(2,1)
...
Latitude(N)	Longitude(M)	RoadList_ptr(N,M)	DestinationCircleList_ptr(N,M)	IntersectionList_ptr(N,M)

Fig. 5

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RoadList_ptr(i,j) ->

RoadList		
Road_ptr	nodeID_min	nodeID_max
Road_ptr(1)	nodeID_min(1)	nodeID_max(1)
Road_ptr(2)	nodeID_min(2)	nodeID_max(2)
...
Road_ptr(R(i,j))	nodeID_min(R(i,j))	nodeID_max(R(i,j))
NULL		

Fig. 6a

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Road_ptr(k)->

Road Properties							
Node_ID	Latitude	Longitude	Elevation	Distance to:		Intersection_ID	Destination Circle_ID
				Previous_node	Next_node		
1							
2							
....
N_Nodes							
NULL							

Fig. 6b

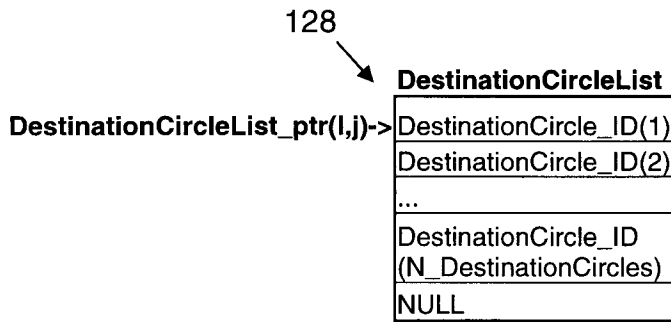


Fig. 7a

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Destination Circles				
DestinationCircle_ID	Latitude	Longitude	Elevation	DestinationCircle_ptr
1				
2				
...
N_DestinationCircles				

Fig. 7b

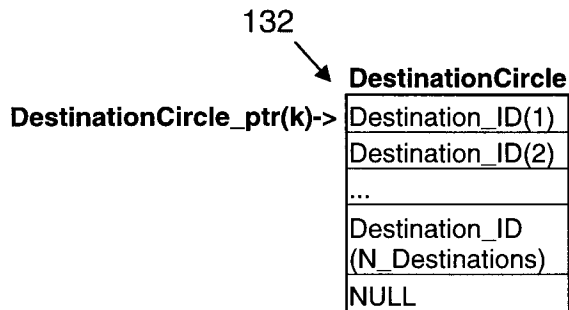


Fig. 7c

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Destination Properties									
Destination_ID	Latitude	Longitude	Elevation	Description		Intersection_ID	Destination_Circle_ID	RoadID_ptr	nearest_node_ID
				Text	A/V				
1									
2									
....
N_Destinations_Total									

Fig. 7d

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IntersectionList_ptr(i,j)->

IntersectionList	
Intersection_ID(1)	
Intersection_ID(2)	
...	
Intersection_ID (N_Intersections)	
NULL	

Fig. 8a

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Intersections

Intersection_ID	Latitude	Longitude	Elevation	Intersection RoadList_ptr	Destination ReachableList_ptr
1					
2					
...
N_Intersections					

Fig. 8b

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Intersection RoadList_ptr(k)->

IntersectionRoadList			
RoadID_ptr	node_ID	Destination ReachableList_1_ptr	Destination ReachableList_2_ptr
RoadID_ptr(1)			
RoadID_ptr(2)			
...	...		
RoadID_ptr (Nintersecting_Roads)			
NULL			

Fig. 8c

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Destination ReachableList_ptr(l)->

DestinationReachableList	
Destination_ID	DestinationCircle_ID
Destination_ID(1)	
Destination_ID(2)	
...	...
Destination_ID (Ndestination Reachable)	
NULL	

Fig. 8d

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Next Destinations

Destination_ID	DayOf Week	Time OfDay	Time	TimeOfDay _Tolerance	Next Destination_ID	Subsequent Destination_ID	Route_ptr	Distance	Duration	Likelihood	Δ Energy

Fig. 9

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Routes

Route_ptr(m)->								
Road_ptr	Node_ID	Destination_ID	Intersection_ID	distance	elevation	Δ_Energy		
Road_ptr(1)	Node_ID(1)	Destination_ID(1)	Intersection_ID(1)	0	elevation(1)	0		
Road_ptr(2)	Node_ID (2)	Destination_ID(2)	Intersection_ID(2)	distance(2)	elevation(2)	Δ_Energy (2)		
...		
Road_ptr (Nnodes)	Node_ID (Nnodes)	Destination_ID (Nnodes)	Intersection_ID (Nnodes)	Distance (Nnodes)	Elevation (Nnodes)	Δ_Energy (Nnodes)		
NULL								

Fig. 10

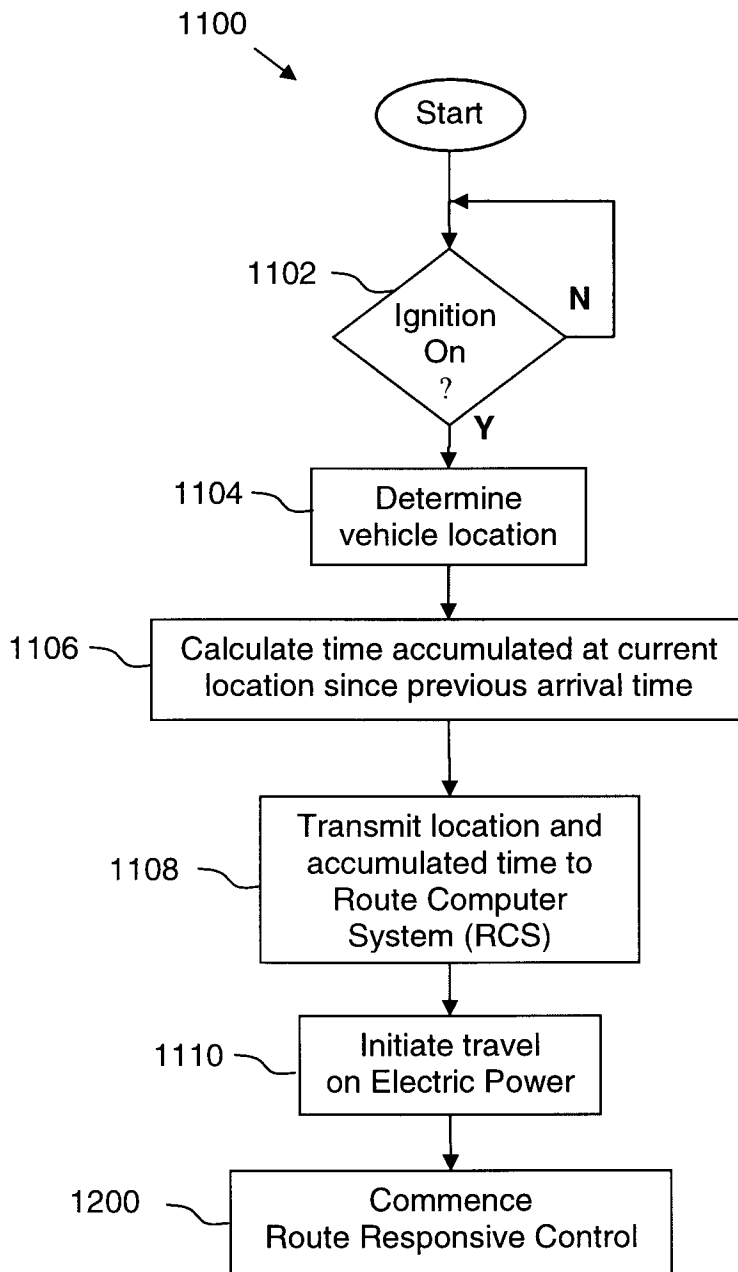


Fig. 11

Fig. 12

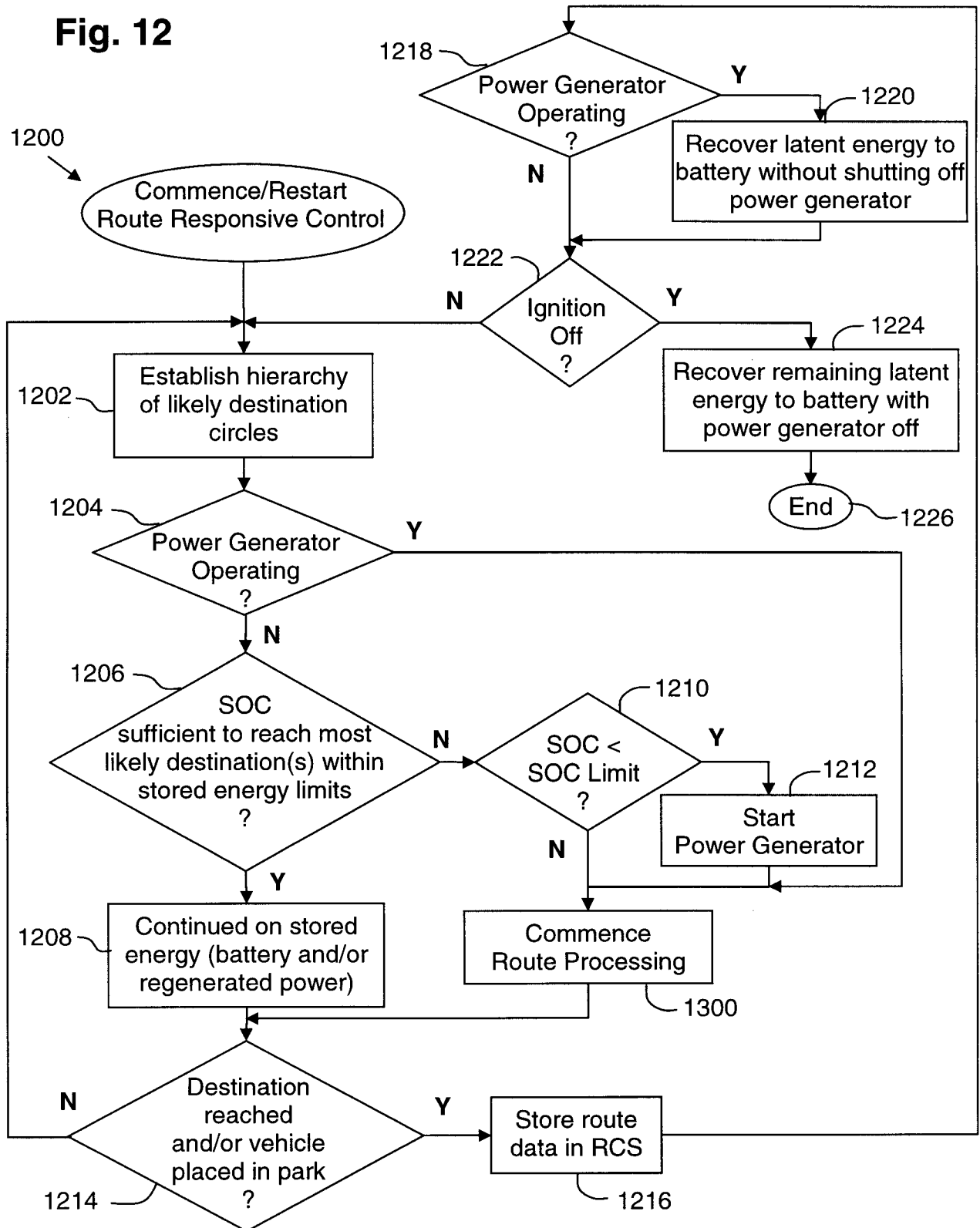
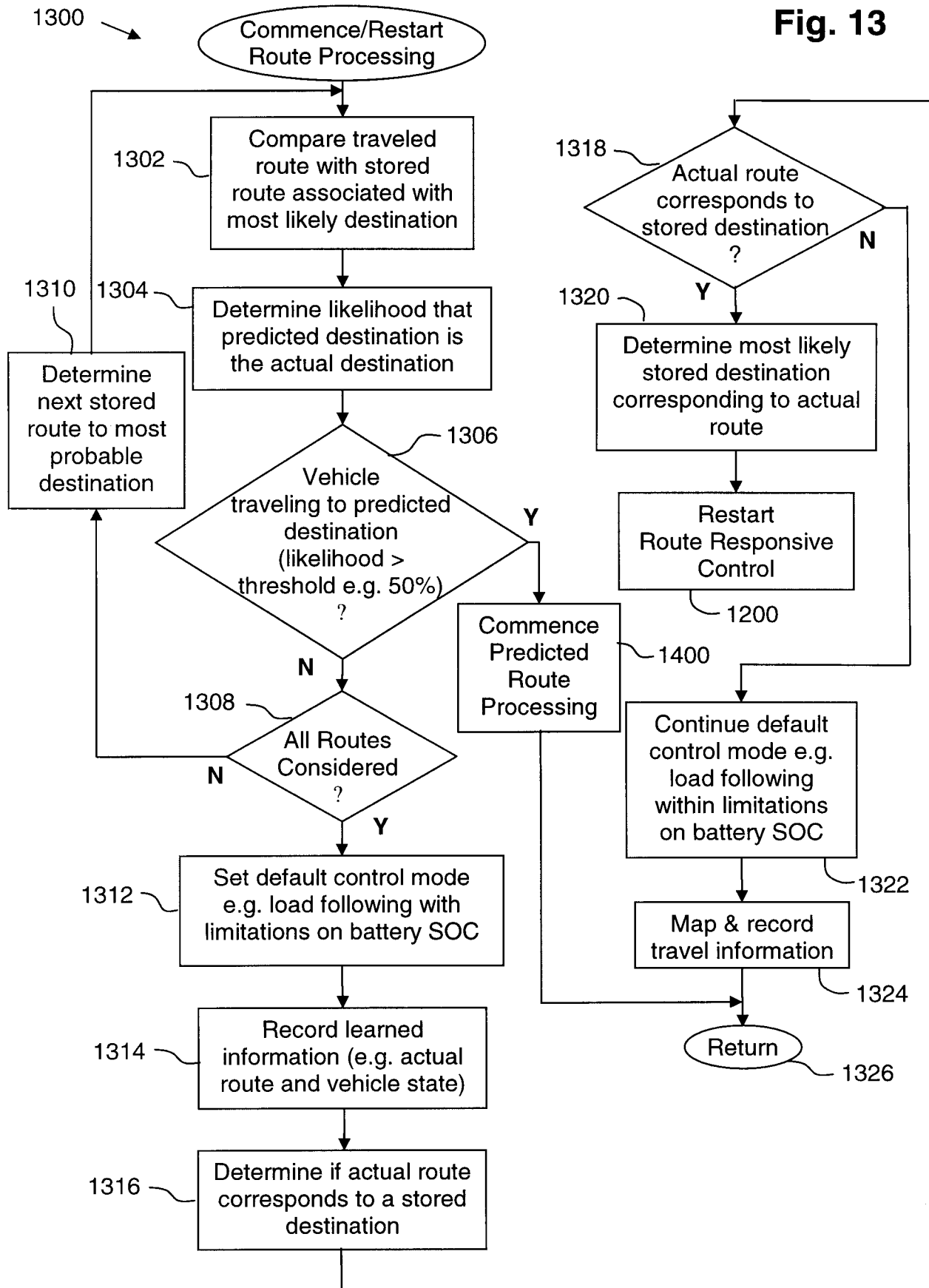


Fig. 13



1400

Fig. 14

